



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,335	11/02/2001	Valery Bogdanov	ORCH 0183 PUS	6021

7590

09/24/2003

Kevin G. Mierzwa
ARTZ & ARTZ, P.C.
Suite 250
28333 Telegraph
Southfield, MI 48034

EXAMINER

MORAN, TIMOTHY J

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,335

Applicant(s)

BOGDANOV, VALERY

Examiner

Timothy J. Moran

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-31 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) encl. 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: surface (56) (page 8, paragraph [0041], line 6) . A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

In the specification, page 8, paragraph [0040], lines 4, 10, and 11, and elsewhere, the term "48" is used to refer to the element labeled as "43."

Appropriate correction is required.

Claim Objections

Claim 25 objected to because of the following informalities: In line 4, the term "a imaging beam" should be replaced with --an imaging beam--.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-10, 12-17, 19, 21-23, and 25-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "said long pass filter" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "said band pass filter" in line 7. There is insufficient antecedent basis for this limitation in the claim. Note that claims 3-10 have not been further treated on merits.

Claim 5 recites the limitation "said long pass filter" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "said long pass filter" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said laser source" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "long pass filter" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "said excitation light source" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "said excitation light source" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said laser source" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "said optical axis" in line 2. There is insufficient antecedent basis for this limitation in the claim. Note that claim 15 has not been further treated on merits.

In claim 19, lines 1-2, the term "an second side" is unclear. In line 4, the term "side" is unclear.

Claim 19 recites the limitations "said long-pass filter, said imaging lens, and said band pass filter" in lines 12-13. There is insufficient antecedent basis for these limitations in the claim. Note that claims 19-24 have not been further treated on merits.

In claim 22, line 2, the term "lens positioned" is unclear.

Claim 22 recites the limitation "said long pass filter holder" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "said imaging lens holder" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled

in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “source” in the term “detection source” in claim 25 is used by the claim to mean “detector”, while the accepted meaning is “a point of origin.” The term is indefinite because the specification does not clearly redefine the term.

Claims 26-31 appear to claim both a device and a method, which is improper. For this action claims 26-31 are understood to depend on claim 25.

Claim 26 recites the limitation “said chip plate” in line 2. There is insufficient antecedent basis for this limitation in the claim.

In claim 30, the term “source through an imaging lens” is unclear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 2, and 11-14 is rejected under 35 U.S.C. 102(b) as being anticipated by Harter, U. S. Patent No. 6,020,591. Regarding claim 1, Harter describes an analysis device for an object having first and second sides (specimen 38, fig. 3, col. 5, lines 21-24), an excitation source (37, col. 5, lines 24-30) on a first side of the object generating an excitation beam forming an imaging beam on the second side of the object, an optical assembly (48, col. 5, lines 55-58), and a detector (50) forming an image.

Regarding claim 2, Harter teaches the use of a plate under the object (fig. 3).

Regarding claim 11, Harter teaches the use of a CCD device (col. 5, lines 55-58).

Regarding claim 12, Harter teaches the use of a fluorescent light source (37, col. 5, lines 24-30).

Regarding claim 13, Harter teaches the use of a laser source (abstract).

Regarding claim 14, Harter teaches that the laser is at a 90 degree angle to the plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harter. Harter does not explicitly teach the use of an X-Y stage. However, the use of such stages is well known in the art of optical specimen analysis. Therefore it would have been obvious to one of ordinary art to provide an X-Y stage in the invention of Harter for the advantage of enabling sample movement.

Claims 25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable, as far as understood, over Harter in view of Dorsel, U. S. Patent No. 5,585,639.

Regarding claim 25, Harter describes an analysis method comprising disposing a plate between an excitation source and a detector (fig. 3, col. 5, lines 24-30), directing an imaging beam to said detector (50) through an optical assembly, and forming an image at said detector. While Harter does not explicitly teach the analysis of an array, the

analysis of arrays is well known in the art of fluorescence microscopes (see Dorsel, abstract). Therefore it would have been obvious to one of ordinary skill in the art to analyze an array using the method of Dorsel for the purpose of obtaining fluorescence information.

Regarding claim 27, Harter describes the use of a filter (44, fig. 3).

Regarding claims 28 and 29, the use of long pass filters and band pass filters are well known in the art of optical analysis. Therefore it would have been obvious to use them in the modified method of Harter for the advantage of manipulating wavelength distributions.

Regarding claim 30, Harter describes the use of an imaging lens (fig. 3).

Allowable Subject Matter

Claims 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 26 and 31, if understood to depend on claim 25, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The inclusion in claims 17, 18, and 26 of limitations that a plate holder comprises a mask which blocks light outside defined wells is considered a nonobvious modification of prior art inventions such as Harter. The inclusion in claim 31 of

limitations that an excitation analysis method comprises reflecting a portion of an excitation beam from an optical assembly back to a sample region is considered a nonobvious modification of prior art inventions such as Harter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Moran whose telephone number is 703-305-0849. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

T. M.

TM
September 11, 2003

Constantine Hanna
CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878